State of New Jersey
Department of Environmental Protection

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August 31, 2004

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290 Broadway
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New York, NY 10007-1866

Subject: Diamond Head Oil Refinery Superfund Site
Remedial Investigation Draft Technical Memorandum (Phase 1)
Kearny, Hudson County, New Jersey

The New Jersey Department of Environmental Protection (Department) is in receipt of the above document prepared by CH2MHILL, dated June 2003 and a review in accordance with N.J.A.C. 7:26E "Technical Requirements for Site Remediation," has been completed. As the support agency for this remedial investigation, the Department offers the following comments.

Specific Comments:

Page 4-6, Section 4.3.4, "Sediment":

Sediment sample results were compared to the same criteria used for surface soil results. To assess potential ecological impacts, sediment sample results must also be compared to the Department's "Sediment Screening Criteria".

Page 4-7, Section 4.4.1.1, "Pesticides/PCBs":

The text states "There are no criteria for PCBs in surface soil." This is incorrect as both Toxic Substance Control Act (TSCA) and the Department provide criteria for total PCBs. The Department's Residential Direct Contact Soil Cleanup Criteria (RDCSCC) and Non Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) for total PCBs in soil are 0.49 ppm and 2 ppm, respectively. These criteria are shown in Appendix A of the Technical Memorandum (TM), but not referenced in the text of the document.

Table 4-7:

The Department's Soil Cleanup Criteria (SCCs) for total PCBs in soil need to be inserted into this table.

Table 4-29 Groundwater – List of Compounds Exceeding Criteria:

Table 4-29 incorrectly listed the Class II-A NJGWQS for three VOCs - Chlorobenzene, Xylene, 1,2-cis-Dichloroethylene.

The values should be as followed (in ppb): Chlorobenzene 50
Xylene 1000
1,2-cis-Dichloroethylene 70

General Comments:

Well Search:

The Phase I TM shows no evidence that a well search was conducted.

The results of a well search conducted pursuant to NJAC 7:26E-3.7(e), is required according to NJAC 7:26E-3.13(b)2.iii.

This information is important in determining potential receptors by identifying potable, industrial, and commercial wells.

The department is asking that a well search be conducted and the results be provided. If a well search has already been completed, please submit the results.

Contaminant Delineation:

Delineation at the source areas appears to be near complete. However, there is evidence at the site's boundaries that show contaminant plumes are extending offsite.

For purposes of the final remediation, including institutional and engineering controls, the full extent of off-site contamination must be determined.

Topography:

According to NJAC 7:26E-3.11(b)2.i the site investigation report must provide a description of the site's topography. In addition, a site map showing topographic contours would be beneficial.

This information is important in determining surface water flow and low lying areas where ponding/seepage could occur.

Water Bodies:

NJAC 7:26E-3.13(b)2.ii Requires: the use of, distance to, flow-direction, and names of surface water bodies within one-half mile of the site with emphasis upon water bodies topographically or hydraulically downgradient of the site that may receive site discharge or runoff.

This is information is not clearly defined in the Phase I report.

Land Use:

According to NJAC 7:26E-4.2(b)4.vi, a description of land use within a 1,000 feet radius of the site boundary including proximity of the site to environmentally sensitive areas and/or sensitive human receptors (for example, residences, schools, parks).

This information is not clearly defined in the Phase I report.

Gas Vapors:

Hackensack Meadowland Development Commission (HMDC's) long term plan of developing the site for an office building will require an assessment of the potential vapor intrusion pathway from contaminated ground water beneath any proposed structure(s) into the living/working spaces.

Additional Comments:

A recommendation was made to install three deep monitoring wells to evaluate the vertical extent of the groundwater plume within the bedrock. The locations would be up-gradient, down-gradient, and side-gradient of the lagoon area. Depth to bedrock is estimated to be 150' to 200' bgs.

A remedial investigation was conducted at the MSLA-1D Landfill, which is adjacent to the site to the southeast. Bedrock wells were installed at this site. Depth to shale bedrock ranged from 70' to 80' MSL

This information may be beneficial when installing the deep monitoring wells.

Human Health and Ecological Assessment:

The Human Health and Ecological Assessments included in this TM is still under department review and comments (if any) will follow as soon as they are completed.

Should there be any questions in regard to the above comments please feel free to contact me at 609-777-1398.

Respectfully,

Atwood F. Davis, Case Manager
Bureau of Case Management

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